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Mathematical and Conversational
Computer Models for Manpower
Planning Project
Report No. 2

ATTITUDES AFFECTING TURNOVER OF NAVY CIVILIAN EMPLOYEES

by

Clarence Curry*

March 1974

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This report presents the results of a study aimed at defining linkages between the work of two groups within the Office of Civilian Manpower Management, Department of the Navy. The first group, the Manpower Information Systems group, has developed a goal programming model to minimize discrepancies from manpower requirements by job category over time (Charnes, Cooper and Niehaus, 1972). A matrix of transition rates (developed from historical data) is used to distinguish probabilistically between those staying in a particular job category, those moving to other job categories and those leaving the organization. The decision variable which can be used to achieve the manpower goals are then the number of hires and fires in each job category for each time period. Weighting factors are used to indicate the relative importance of achieving goals in the various categories, and the relative cost of hiring and firing employees. The system is also constrained by budget ceilings and manpower ceilings.

The second group, the Personnel Evaluation Branch, has developed a questionnaire to aid the various Navy installations or activities in evaluating their own personnel program for civilian employees. The questionnaire was intended to cover eleven program areas merit promotion, training, labor-management relations, equal employment opportunity, classification and pay, position management, job information/performance, communication, supervision, employee services and morale. Actually two questionnaires were developed, one for manager/supervisors and one for non-supervisory employees. The questionnaires are included in the Appendix. Questions for each group were phrased to be most meaningful for the particular group but covered the same eleven areas. The respondent had a choice of three answers for

each question: yes, ?, or no. The questionnaire has been administered to over 150,000 Navy employees representing over 200 Navy installations.

The primary purpose of this study was to determine if the survey data yielded any explanatory power for turnover rates of Navy employees and to explore the possibility of including decision variables in the goal programming model which would alter turnover rates.

Several variables from the survey data exhibited significant relationships with employee turnover. The significant variables were union-management relations, job satisfaction/morale, satisfaction with subordinates, policy toward subordinates and employee services. Two of these variables, union-management relations and policy toward subordinates, were identified as most feasible for inclusion in the goal program. Problem areas are identified and a strategy is sketched for defining policy variables. The definition of policy variables requires additional data relating to union-management relations and policy toward subordinates at the various Navy installations.

Since respondents to the questionnaire were anonymous, it was not possible to relate an individual's responses to his transition behavior. For this reason, comparisons of responses and turnover behavior were made across installations. That is, mean responses were determined for each installation and compared with transition rates from the same installation. The analysis will be reported in four sections:

1. Reduction of the survey data
2. Determination of explanatory power of survey data with respect to turnover.
3. Identification of problem areas.
4. Recommendations for further research

Analysis of Survey Data

Survey data was available from 211 Navy activities. In most cases, for activities with less than 1000 civilian employees the questionnaire was administered to all civilians. For larger activities a sample of at least 1000 employees was usually used. Yes, ?, and no responses were coded +1, 0, and -1 respectively and average response scores were calculated for each activity. Individual responses containing more than 5 blanks (out of 65 questions) were excluded from the analysis. Up to 5 blanks were coded as (?). The record for each activity then consisted of 65 supervisor scores and 65 employee scores.

Clearly, the 130 measures available on each activity do not measure 130 independent attributes. Thus, it would be desirable to reduce these measures to a smaller, more manageable set of underlying variables. One obvious choice for a reduced set of measures is the eleven areas identified a priori by the Personnel Evaluation Branch and listed in the introduction. However, we shall make use of a statistical technique, principal component analysis, which will exploit the structure of the data in reducing the number of variables. This analysis will produce a new set of variables which are linear combinations of the original variables. These linear combinations are chosen so that the first linear combination captures as much of the variance in the original data as possible. The remaining linear combinations are chosen so that each one accounts for as much of the remaining (unexplained) variance as possible subject to the condition that each factor is orthogonal to all previous factors. (Cooley and Lohnes, 1971). Perfect reproduction of the original

data would require as many linear combinations (factors) as there were original variables but the systematic variance can usually be explained by a substantially smaller number of factors. By systematic variance, we mean variance associated with true scores assuming no measurement error.

If the number of independent dimensions which the employee survey data was measuring was some number less than 65, say 15, then all of the variance in the true employee scores could be represented by 15 factors. Furthermore, the first 15 factors from the principal component analysis retain more of the variance from the original data than any other set of 15 orthogonal factors.

Since we don't know the dimensionality of the data, we must also use the results of the analysis to determine how many factors to retain. Horn's rule (Horn, J. L., 1965) was used to make this decision. The procedure consists of generating random matrices of the same size as the data matrix of interest and comparing the amount of variance explained by factors from the random matrix with the variance explained by the data matrix.

Principal component analyses were performed separately on the employee and supervisor data. The employee analysis indicated that 8 factors accounting for 65% of the total variance in the original data should be retained. The supervisor analysis yielded 10 factors accounting for 57% of the total variance. Variance accounted for by each factor is given in Table I.

The use of Horn's rule to determine the number of factors retained is illustrated by Figure I. The factors retained are those with more explanatory power than factors of similar size random matrices.

Each of the factors retained is a linear combination of the 65 original questions. That is, there are 65 weights or factor loadings, one for each question, associated with each factor. These weights vary from -1 to +1. Questions with weights approaching -1 are highly negatively correlated with the associated factor while questions with weights approaching +1 are positively correlated with that factor. Questions with weights near zero have no significant association with the given factor. Easily interpreted factors are those in which each question loads close to 1, -1, or 0.

Varimax rotation was used to aid interpretation by rotating the factors to produce some high loadings and some near zero loadings on each factor. (Cooley and Lohnes, 1971).

Results of the varimax rotation are presented in Tables II and III. Questions listed under a given factor are those with high loadings on that factor. In most cases, questions loading together are reasonably consistent. The factor names are simply a subjective attempt to summarize the common elements of questions loading together.

The first employee factor, EF1, relations with supervisors, appears to be a measure of the employee's personal relations with his immediate supervisor. Most of the questions relate to freedom or fairness.

EF2, Job Information, focuses very clearly on the employee's knowledge about his own job. The questions cover the employee's knowledge of his job requirements and also provide information on whether the employee feels that the job he is performing is consistent with those requirements.

The third factor, EF3, emphasizes the value of training with respect to advancement and self-development.

Employee factor four, EF4, focuses on the merit promotion system. Questions here are concerned with the selection process for promotion and equal treatment for women and racial minorities.

EF5, Union-Management relations, seems to be concerned with labor-management relations on a more impersonal level than that expressed in EF1. There are also some questions relating to communications, but these also seem to be of an impersonal nature.

The interpretation of employees factors 6, 7, and 8 are relatively clear.

The supervisor factors are reasonably consistent with the employee factors. Supervisor factors 1, 2, 4 and 7 seem to be measures of the same dimensions as Employee factors 1, 5, 7 and 8 respectively.

The third supervisor factor is not directly related to any of the employee factors. Most of the questions loaded here are concerned with procedures relating to position descriptions.

SF5 appears to be a measure of supervisors satisfaction with the merit promotion system as a means of obtaining satisfactory employees. This is a different perspective from the employee evaluation of the fairness of the system.

Satisfaction with subordinates seems to be the measure underlying SF6. The wording of question 20 indicates that this factor might also be a measure of satisfaction with the guarantees of job security provided by the civil service system.

Supervisor factors 8 and 9 provide measures of the supervisor's relations with his subordinates. These measures provide the opposite perspective of EF1.

The last factor SF10 is a measure of the amount of supervisory training received.

It should be noted that over 25 per cent of the questions did not exhibit high loadings on any of the factors. These questions are listed in Tables IV and V. Many of these questions exhibited moderate loadings on one or more factors. In most cases these questions were consistent with questions exhibiting high loadings on the same factor.

Several questions exhibited low loadings on all the factors. A few of these questions are worthy of additional comment. First, there was a question on parking facilities on both questionnaires (E58 and S63, but in both cases, this question did not load with the other employee services.

There were also several questions relating to racial minorities in this low loading group (E20, E57 and E54). Other questions on racial minorities did not load together but loaded with questions worded similarly but affecting all employees. Significant responses to these questions might be noted if responses from minority groups were evaluated separately.

Finally, there were some questions in this group concerning treatment of subordinates by supervisors (S4, S8, S12, and S41). The low loading here can probably be attributed to all supervisors responding with what they perceived to be the "right" answer rather than the answer that described their own behavior.

The questions in the low loading group do not make any significant contribution to the explanation of the systematic variance in the data and could be deleted without sacrificing useful information about the total population. Some questions could also be deleted from factors with a relatively large number of questions exhibiting high loadings. It might also be desirable to add additional questions to aid interpretation of factors with a relatively small number of questions exhibiting high loadings.

The final step of the principal components analysis is to determine the factor scores for each activity. The first employee factor score for the first activity would be determined by multiplying each of the first activity scores from the 65 employee questions by the first factor loading for the corresponding question. This results in 10 supervisor factor scores and 8 employee factor scores for each activity. The original 130 observations for each activity is thus reduced to 18 observations.

To compare the factors from the principal component analysis with the 11 measurement areas posed by the personnel evaluation branch, some aggregation of the factors is desirable. The objective of the aggregation is to reduce the 10 supervisor factors and 8 employee factors to a logically consistent set of common groups. This results in the six (6) groups given in Table VI and compared to the 11 a priori measures in Table VII.

Questions associated with the merit promotion and training areas generally load into the promotion and staffing groups. The labor management area splits into the superior subordinate groups and the union rela-

tions group, as noted previously most of the EEO area questions load with similar questions concerning all employees. The classification and pay areas translate directly to the Job Information classification and pay groups.

Most of the position management questions go to the Job Satisfaction/morale group with the remaining questions scattering to several groups. The job information/performance evaluation group splits consistent with its dual title into the superior-subordinate relations and job information groups.

Most of the questions from the communication and supervision areas are assigned to the superior subordinate relations group. Questions from the employee service and morale areas go to the groups with the same names.

Relation Between Factors and Turnover

The second phase of the analysis was concerned with determining the explanatory power of the survey data with respect to employee turnover. Porter and Steers (1973) recently completed a review of the literature concerned with organizational attributes related to employee turnover. They group attributes with potential for affecting turnover in the following manner:

I. Internal Attributes
   A. Organization wide attributes
   B. Immediate work environment attributes
   C. Job Content attributes
   D. Personal attributes

II. External Attributes

A. Economic conditions

B. Specific job opportunities

C. Unavoidable causes of withdrawal

Since the survey measures internal attributes, we will focus on the literature in that area.

Studies involving organization wide attributes have centered around overall job satisfaction, pay and promotion and organizational size. Several studies [Hulin (1966), Weitz and Nucklos (1955), Taylor and Weiss (1969), Wild (1970)], have found significant differences in measures of job satisfaction between employees who remained in their respective organizations and employees who left. Group 5 provides reasonable measures of job satisfaction for both employees and supervisors.

Studies by Patchen (1960), Saleh, Lee and Prien (1965), Hulin (1968), and Knowles (1964) all indicate that low pay and lack of promotional opportunities contribute to high turnover rates. Groups 2 and 3 provide measures related to pay and promotion.

In a study of British firms of varying size Ingham (1970) found only a weak relationship between size and turnover. Although not part of the survey, data is available on organization size for the activities of interest here.

Immediate work environment measures which have been studied include supervisory style, work unit size and peer group interaction. Only supervisory style will be discussed here since our data base does not include measures of the other two areas. Several studies (Fleishman and

Harris, 1962, Saleh, et. al., 1967, Skinner, 1969) have established relationships between turnover and two measures of mutual trust and rapport between supervisor and employee. Similar measures are given by group 1.

Supervisory structure is an indication of the degree to which supervisors plan ahead, define roles and assign tasks for employees. This is similar to the job information measures of group 2.

Dissatisfaction with job content was found to be positively related to turnover in several studies. Studies by Waters and Roach (1971), Wild (1970) and Telly et. al. (1971) investigated the overall reaction to job content. Other studies (Taylor and Weiss, 1969, Wild, 1970, Lyons, 1971, Hackman and Lawler, 1971), focused on specific aspects such as task repetitiveness, job autonomy and role clarity. Measures of various aspects of job content are found in groups 2 and 5.

Factors unique to the individual have been found to have a significant effect on turnover in many studies. (Downs, 1967, Stone and Atholstan, 1969, Farris, 1971, Robinson, 1972). The factors include age, length of employment, similarity of job and vocational interest, personality characteristics and family considerations. Demographic data available from the survey includes length of employment, sex, general work area, grade range and race (expressed only as member of minority group).

The survey also provides some additional dimensions of organizational structure which have apparently not been tested previously. Group 6 provides information on employee services and group 4 provides information on labor union relations.

Most of the studies cited previously were concerned with determining the effect of one aspect of organizational structure on employee turnover. In this analysis we will apply multiple regression to determine the joint effects of the dimensions of the survey data.

The dependent variable for the analysis was the retention rate (percent employees staying in activity) for the surveyed activity. Retention data was lagged by 6 months to reflect behavior of respondents to the questionnaire. That is, survey data from calendar year 1970 was compared to retention data from the fiscal year beginning June, 1970. Since retention data was not available for the fiscal year beginning June, 1973 survey data was compared to turnover data from the previous fiscal year.

Retention rates were determined separately for GS (white collar) and Wage grade (blue collor) employees. Retention rates were not included for activities with less than 20 employees in the GS or Wage grade groups.

The regression analysis estimates coefficients for equations of the form below:

$$\text{Retention Rate} = B_0 + B_1X_1 + B_2X_2 + \ldots B_{22}X_{22}$$

where X_1 to X_8 = factor scores on 8 employee factors

X_9 to X_{18} = factor scores on 10 supervisor factors

X_{19} to X_{21} = dummy variables for year survey was made

X_{22} = activity size (number employees)

Results of the regression runs using retention rates for GS employees are presented in Table VIII. These results are based on observations from 159 activities. The values reported are the estimated coefficients

for the given explanatory variable. The coefficients enclosed in brackets are those whose values were statistically significantly different from zero ($t \geq |1.96|$). These coefficients indicate that variables that have a significant effect on retention rate. When no coefficient is reported then the associated variable was not included in that particular run. The adjusted R^2 value reported in the last column indicates the percent of variance in the retention rate data accounted for by the explanatory variables but an adjustment is made to account for the number of explanatory variables used to make the estimate.

The first regression run only included the employee factor scores. Three of the factors, job information, fairness of the merit promotion system, and employee services, were significant.

The second run only included the supervisor factor scores. This run yielded greater explanatory power than the employee scores (adj R^2 = .17 vs .09 for employee scores). Significant factors were Union-Management relation, job satisfaction/morale, satisfaction with subordinates and policy toward subordinates. It is interesting to note that the first factor, the factor which was most significant in explaining the variance of the survey data, had no significant effect on retention rate for either the supervisor or employee data.

Both employee and supervisor factor scores were included in the third regression run. None of the employee factors were significant in this run. Three of the four supervisor factors (SF4, SF6 and SF9) that were significant in the previous run remained significant. The supervisor factors alone provide almost the same explanatory power as the combined run. Adj R^2 for the combined run was .19 vs .17 for the supervisor factors alone.

For run 4 all of the factors which were not significant in run 1 or run 2 were deleted and the reduced set of employee and supervisor factors was regressed. This regression yielded 4 significant factors E8, S4, S6 and S9 and adj R^2 remained at .19.

For run 5, all of the factors which were not significant in run 4 were deleted. All variables were significant, and adjusted R^2 increased from .19 to .20. The last 3 runs, 6, 7, and 8 involved adding respectively dummy variables and number employees. The dummy variables were significant in both runs 6 and 8. Number of employees was not significant.

Run 6 appears to provide the best description of retention rate, and its equation is given below:

$$R = 78.72 + 1.1\,SF2 - 1.7\,SF4 + 2.0\,SF6 + 1.9\,SF9 - 1.6\,EF8 + 4.8Y_1 + 5.2Y_2 + 4.1Y_3$$

where R = Retention rate

SF2 = Factor score on Union Management Relations

SF4 = Factor score on Job Satisfaction/Morale

SF6 = Factor score on Satisfaction with Subordinates

SF9 = Factor score on Policy toward Subordinates

EF8 = Factor score on Employee Services

Y_1 = 1 if survey made in 1973, 0 otherwise

Y_2 = 1 if survey made in 1972. 0 otherwise

Y_3 = 1 if survey made in 1971. 0 otherwise

Since these variables represent linear combinations of the original questions, the signs of their coefficients are affected by the phrasing of the questions and the sign of the factor loadings.

Evaluating signs on the coefficients and the factor loadings indicates that retention rates vary as expected with union management relations, policy toward subordinates and employee services. That is, retention rates increase with increasing satisfaction in these areas.

Retention rate increases with decreasing satisfaction with subordinates. This result emphasizes that high retention rates are not always desirable. High retention may mean that too many unsatisfactory employees are being kept in the system.

Results also indicate that retention rate increases with decreasing job satisfaction/morale, but this is consistent with the previous result. Unsatisfactory or low performing employees could be expected to decrease the morale of an organization. Since this is the supervisor's perception of job satisfaction/morale, another possible interpretation of the result is that there is a bias between supervisor and employee perceptions.

The relatively low R^2 values indicate that neglected variables, such as attributes external to the organization, also have significant effects on retention rates. It should be remembered, however, that the objective was not to explain turnover but to determine relationships with the survey data. If the excluded variables are uncorrelated with the factor scores then their exclusion does not bias the estimated effects of the factors.

Initial regression attempts using wage grade (blue collar) retention rates yielded poor results. Adjusted R^2 for employee factors only, and supervisor and employee factors were .02, .05, and .03 respectively. The relatively poor results are probably due to differences in survey

responses between GS and wage grade employees.

The final goal of this analysis was to sketch a framework for incorporating decision variables affecting turnover into a goal programming model for manpower planning. Basically the extended model would permit the number of employees in a job category to be altered by changes in the turnover rate as well as by hiring and firing.

The present goal programming formulation includes a constant turnover rate for each job category. The extended model would require policy variables that alter turnover rates. Costs must also be defined for these policies for inclusion in the budget constraints. The significant variables from the regression analysis suggest some possible mechanisms for altering turnover but additional work is needed to translate these attitudinal measures into well defined policies with estimable effects on turnover.

Policies designed around the employee services and policy toward subordinates variables would probably be the easiest to implement and control. And it is recommended that additional work to define policy variables be confined to these areas. Questions loading on these factors SF2 and SF8, indicate that information and skills required to alter responses in these areas and thus turnover could be passed along to supervisors in routine training sessions.

While it might seem simple to design a policy to improve employee services, it is not clear that survey responses in this area refer to services that are internal to the organization. The employee service factor might actually be measuring community services.

Feasibility of a policy relating to job satisfaction/morale is questionable because of the sign of the coefficient on this variable. Although the regression analysis indicates that low morale installations have low turnover rates it does not seem logical or desirable to expect a policy aimed at decreasing morale to decrease employee turnover.

The usefulness of a policy related to satisfaction with subordinates in altering turnover would probably be severely limited by existing civil service regulations concerning grounds for dismissal of employees.

Problem Areas

The analysis revealed several problem areas. The first issue is the stability of the factor structure. Since the activities surveyed differ considerably in size, function and employee demographics, it is possible that principal components derived from homogeneous sub-sets of the activities might also differ considerably from those reported here. The activity size deserves special attention since scores from each activity were treated as a single observation.

A large shipyard with almost 10,000 employees and small field offices with less than 50 employees received equal weights in the principal components analysis. To provide some insight into the effect of employee size the principal components analysis for the employee data was repeated excluding all activities with less than 200 employees. This cut-off eliminated approximately 50% of the surveyed activities but less than 10% of the surveyed employees.

Factor loadings were similar to those reported for all the activities except that the questions related to union activities no longer showed any high loadings. It seems reasonable that differences in attitudes about unions would be related to activity size since the presence of unions is more likely at large activities. The new factor from the reduced set of activities seemed to be a measure of communications between employees and supervisors and was consistent with some of the questions loading highly on the labor union factor from the original analysis.

In an attempt to determine other dimensions of the activities on which the factor structure might differ the activities were factored using the employee questions as observations. Almost all the activities exhibited high loadings on the first factor which accounted for approximately 85% of the variance. There did not seem to be any consistent pattern among activities exhibiting high loadings on the second or third factor.

The factors do indeed seem to be stable across activities, but there is an additional step that could be taken to verify this assumption. The activities could be split into groups along the measure of interest and the principal components derived from such groups could be compared for similarity. That is, if the concern was differences between activity functions, factors derived from shipyards could be compared to factors derived from air stations, supply centers, etc. Gleason (1973) outlines a canonical correlation procedure to measure the similarity of two factor spaces.

This analysis could also be extended to determine the stability of the factor structure over grouping schemes different from grouping by activity. The differences in explanatory power for GS and wage grade retention rates indicates that the factor structure might differ for GS and wage grade employees.

The second problem is also related to the differences in activity size. The regression analysis results reported previously were based on the assumptions of the standard linear model. One of the assumptions here is that the variances of the observations are constant and uncorrelated (Theil, 1971). That is:

$$\text{Var}\ (y \mid x) = \sigma^2 I \text{ where } I \text{ is the identity matrix}$$

But, the observations used in this analysis are group (installation) averages and the variances decrease as the number of employees in the group increases. If the original variances on individuals within groups were equal the problem can be corrected by using weighted least squares rather than ordinary least squares. Observations should be weighted by the number of employees used to determine the group average. (Johnston, 1972).

Another assumption of the standard linear model is that the explanatory variables of the regression equation are not linearly dependent. The problem associated with perfectly correlated or near perfectly correlated explanatory variables is called multicollinearity. The most serious consequence of multicollinearity is a loss of precision in estimating coefficients. Estimates on variables with high correlations may have very large errors. and these errors may be highly correlated. This

loss of precision makes it very difficult to determine the separate effects of variables within a set exhibiting high correlations. (Johnston, 1972).

The principal components analysis produces a set of uncorrelated employee factors and a set of uncorrelated supervisor factors, but it is likely that there is correlation between employee and supervisor factors.

One strategy to avoid this problem is to use linear combinations of the employee and supervisor factor scores to create a set of uncorrelated explanatory variables.

The groups given in Table VI combine the employee and supervisor factors most likely to be correlated. Simple linear combinations, such as sums or differences of the factor scores within a cluster could then serve as dependent variables. While this procedure improves the accuracy of the estimates, it compounds the interpretation problem.

The final problem concerns the usefulness of the available turnover data. This data simply reported percent employees leaving a given activity during a particular time period. No information was available concerning the relative contributions of voluntary and involuntary withdrawals. The attitudinal measures defined by the factor scores could only be expected to affect voluntary withdrawals, but a change in involuntary layoffs might affect employee attitudes.

Thus, when a given factor exhibits a strong relationship with turnover, it is not clear whether employees are leaving voluntarily because of the importance of the factor or if they are exhibiting attitudes as a result of layoffs or involuntary withdrawals.

Most involuntary withdrawals within the Navy result from reduction in force (RIF) in which groups of employees from a given activity are laid off at the same time. This makes it possible to eliminate most involuntary withdrawals from the turnover data by deleting those activities which underwent substantial (RIFs) shortly after the employee survey was made.

If the sample of activities for which a RIF occurred prior to the survey is of sufficient size then an attempt can be made to determine differences in attitudes due to the RIF. This could be accomplished by including involuntary withdrawals during the previous time period as an explanatory variable. The turnover rates are also included by retirements but turnover data is available separately for employees eligible for retirement.

Recommendations for Further Research

First to minimize the problems cited repeat the analysis reported have including these additional steps:

1. Perform separate principal components analysis for GS and wage grade employees and supervisors. Check factor structures and if they are different, compute separate factor scores for GS and wage grade employees.

2. Identify all installations substantial RIF's occurred or were announced within one year of the time the survey was made. If the announcement or RIF occurred after the survey delete the installations from the analysis. Include an additional dummy variable with value 1 for installations where the announcement or RIF occurred prior to the survey and value 0 for installations where no RIF occurred.

3. Include available demographic data.

4. Use weighted least squares regression.

5. Evaluate feasibility of new set of significant factors for inclusion in goal program.

These changes should yield improved estimates of the effects of the factors on employee turnover. Finally, we proceed to define the policy variable for inclusion in the goal program.

Assuming that the same factors remain significant and most feasible, define union-management and policy toward subordinates variables by comparing factor scores on these two factors to relevant attributes from a sample of Navy installations. Attributes that might be expected to influence the union management factor score include:

1. Nature of communications between labor leaders and management.

2. Existence of training program in labor relations.

3. Effectiveness of grievance procedures.

4. Percent of personnel effort directed to union relations.

Attributes that might influence the policy toward subordinates factor score include:

1. Criteria for choosing and evaluating supervisors.

2. Training provided to supervisors.

3. Policy of upper management toward lower level supervisors.

The attributes listed above are only intended to illustrate the types of attributes that should be considered. Attributes of interest are those which can be structured into controllable policy variables.

More precisely, it is recommended that additional data on attributes related to union-management relations and policy toward subordinates

be collected from a sample of installations. Measures on these attributes can then be substituted for the respective factor scores in the regression equation defined previously. The effects of these attributes on turnover can then be used to define policy variables. The relationship will thus be linear as required by the goal program format. Costs of these programs must also be estimated for inclusion in the budget constraints.

TABLE II

Results of Varimax Rotation of Employee Factors

Question Number	Question	Factor Loading
EF1 Relations with Superiors		
E 36	Free to do things my own way	(.82)
E 31	Free to discuss work improvements with boss	(.78)
E 57	I am treated fairly and with respect	(.76)
E 11	Supervisor gives me credit when I do good job	(.72)
E 55	Supervisor tries to get my ideas	(.72)
E 60	I am too closely supervised	(-.70)
E 7	Rather go to someone other than supervisor	(-.68)
E 15	Disciplinary measures are fair	(.66)
E 19	Need employee group to protect rights	(.64)
E 40	Minorities are treated fairly	(.63)
E 17	Supervisor keeps me informed on how I'm doing	(.60)
E 45	Can take leave when desired	(.60)
EF2 Job Information		
E 54	Know what I'm expected to do	(.86)
E 64	Know quantity of work expected	(.82)
E 61	Know quality of work expected	(.80)
E 25	Received all training needed to do job	(.60)
E 18	Do too much lower level work	(-.59)
E 39	Understand how job fits into activity	(.56)
E 53	Do too much unnecessary work	(-.55)

Question Number	Question	Factor Loading
EF 3 Value of Training		
E 4	Doing better job because of it	(.82)
E 47	It has helped me advance	(.82)
E 8	Better prepared for promotion because of it	(.81)
E 14	Opportunities exist for self development	(.62)
EF 4 Fairness of merit system		
E 9	Same work requirements for minorities	(.73)
E 37	Management leans over backwards for minorities	(.70)
E 24	Best get promoted	(.67)
E 16	Get fair chance to advance	(.62)
E 3	Same people get best assignments and promotions	(.60)
E 13	Get fair consideration for better jobs	(.55)
E 30	Job opportunities are same for men and women	(.55)
E 28	Everyone does fair share of work	(.50)
EF 5 Union - Management Relations		
E 29	Union members and others treated the same	(.68)
E 49	Free to join union	(.64)
E 41	Bulletin boards keep me informed	(.63)
E 27	Know of job openings	(.60)
EF 6 Classification and Pay		
E 23	Pay is about right for job	(.75)
E 42	Job title is about right	(.64)
E 32	Pay is fair compared to others	(.59)

Question Number	Question	Factor Loading
EF 7 Job Satisfaction/Morale		
E 59	Work I do is interesting	(.84)
E 56	Get personal satisfaction from my job	(.77)
E 63	Work I do is important	(.64)
E 1	Skills and abilities are well used	(.63)
E 65	Would recommend as good place to work	(.55)
EF 8 Employee Services		
E 10	Recreation facilities O.K.	(.63)
E 62	Eating facilities O.K.	(.60)
E 21	Transportation facilities O.K.	(.53)
E 35	Medical and health facilities O.K.	(.51)

TABLE III

Results of Varimax Rotation of Supervisor Factors

Question Number	Question	Factor Loading
SF 1 Relations with Superiors		
S 42	Can help plan future personnel policy	(.74)
S 47	Get info at same time as employees	(.65)
S 62	Boss lets me know when I do good job	(.62)
S 24	Get info from grapevine	(.63)
S 33	Regularly attend staff meetings	(.51)
S 51	Have sufficient authority to place and reassign employees	(.50)
SF 2 Union-Management Relations		
S 54	Dealings with unions are O.K.	(.91)
S 35	Kept informed of union agreements	(.88)
S 44	Free to treat union and non-union employees same	(.80)
S 9	Personnel provides assistance in dealing with unions	(.79)
S 48	Received training in labor relations	(.67)
SF 3 Position Descriptions (PD)		
S 26	Know when PDs are not accurate	(.78)
S 13	Know procedure when PDs are out of date	(.77)
S 17	Review PDs annually	(.74)
S 37	Complete set of PDs available	(.61)
S 16	Men and women have equal job opportunities	(.55)

Question Number	Question	Factor Loading
SF 4 Job Satisfaction/Morale		
S 56	Subordinates skills are well used	(.74)
S 64	I know what is expected	(.70)
S 57	My skills are well used	(.67)
S 59	Employee morale in my unit is high	(.63)
S 65	Would recommend as good place to work	(.60)
S 27	Prefer not being supervisor	(-.55)
SF 5 Satisfaction with Merit Promotion System		
S 15	Personnel has more say than I about classification, recruiting	(.66)
S 46	Pay is enough to attract qualified people	(-.63)
S 11	Merit system provides good applicants to choose from	(-.58)
S 39	Difference in pay vs. subordinates is O.K.	(-.58)
S 1	Satisfied with people referred	(-.57)
S 21	PDs limit flexibility	(.55)
S 18	Promotion system provides candidates in reasonable time	(-.53)
SF 6 Satisfaction with Subordinates		
S 20	Easier to transfer unsatisfactory employees than fire or discipline them	(.65)
S 19	Minorities perform as well as others	(-.58)
SF 7 Employee Services		
S 55	Medical facilities O.K.	(.56)
S 36	Recreation facilities O.K.	(.55)
S 58	Eating facilities O.K.	(.54)
S 61	Transportation facilities O.K.	(.54)

Question Number	Question	Factor Loading
SF 8 Rapport with Subordinates		
S 29	Employees are free to bring problems to me	(.87)
SF 9 Policy Toward Subordinates		
S 14	Delegate authority to subordinates	(.62)
S 52	Discuss changes with employees	(.55)
SF 10 Supervisory Training		
S 28	Received training in position management	(.73)
S 53	Received training on how to be a supervisor	(.73)
S 25	Received training in employee appraisal	(.65)

TABLE IV

Employee Questions Not Listed in Table II

Question Number	Question	Factor on which loadings were noted
	High Loading (>.50) on two or more factors	
12	Position description is accurate	EF2,EF6
	Moderate loadings (>.40) on two or more factors	
5	Free to submit grievance	EF1,EF4
22	Can get help from supervisor	EF1,EF2,EF4
33	Told promptly of changes	EF1,EF2
38	Have chance to make views known	EF1,EF4
44	Agree with last performance rating	EF1,EF4
46	Satisfied with progress	EF3,EF4
	Moderate Loading on one factor (> .40)	
6	Rules available in writing	EF6
26	Supervisor encourages suggestions	EF2
34	Place should organize differently	EF1
43	Training is important for promotions	EF3
48	Know what is going on	EF1
50	Know how pay is set	EF1
51	Know how to get classification reviewed	EF5
52	Understand merit promotion system	EF1
	All Low (<.40) loadings	
2	Have reviewed position description	
20	Would mind working for minority supervisor	
58	Parking facilities O.K.	

TABLE V

Supervisor Questions Not Listed in Table III

Question Number	Question	Factor
High Loading (> .50) on two factors		
60	Have enough authority to do my job	SF1,SF4
Moderate Loading on two or more factors		
5	Given why and reason of infor passed to me	SF1,SF8
10	Have some unsatisfactory employees	SF5,SF6
22	Suggestions are given consideration by management	SF1,SF6
43	There are positions that should do higher priority work (>.40)	SF4,SF5
Moderate loading on one factor		
2	Training is job related and worthwhile	SF4
3	Certain functions could be combined under one supervisor	SF8
23	Workload limits time for subordinates	SF9
30	Employees leaving for higher pay is problem	SF8
31	Would mind working for minority supervisor	SF8
32	Difficult to spare employees for off-job training	SF9
34	Have sufficient authority for discipline	SF1
38	Rules and regulations available in writing	SF4
45	Aware of objectives of position management program	SF3
49	My PD describes what I do	SF5
50	Could reorganize unit more efficiently	SF5

(<.40)

All Low Loadings

4	Have given recognition to subordinates in last year.
6	Can get training accomplished in reasonable time.
7	EEO program is supported by top management.
8	All complaints have been looked into or corrected.
12	Meet periodically with subordinates for evaluation.
40	Minority groups are treated fairly.
41	I see that subordinates know what is expected.
49	My PD describes what I do.
63	Parking facilities are O.K.

TABLE VI

Aggregation of Employee and Supervisor Factors into Groups

	Employees	Supervisors
I.	Superior-Subordinate Relation	
	EF 1 Relations with superiors	SF 1 Relations with superiors
		SF 9 Policy toward subordinates
		SF 8 Rapport with subordinates
		SF10 Supervisory training
II.	Job Information, Classification and Pay	
	EF 2 Job Information	SF 3 Position Descriptions (PD)
	EF 6 Classification and Pay	
III.	Promotion, Staffing	
	EF 3 Value of Training	SF 5 Satisfaction with merit system
	EF 4 Fairness of Merit System	SF 6 Satisfaction with subordinates
IV.	EF 5 Union Management Relations	SF 2 Union Management Relations
V.	EF 7 Job Satisfaction/Morale	SF 4 Job Satisfaction/Morale
VI.	EF 8 Employee Services	SF 7 Employee Services

TABLE VII

Comparison of Groups to A Priori Measurement Areas

	Promotions and Staffing	Union Relations	Job Information Class and Pay	Superior Subordinate Relations	Job Satisfaction Morale	Employee Services	No High Factor Loading
Merit Promotion	E3,13,16,24 S 1,11,18			S 25			E 46,52
Training	E4,8,14,47		E25				E43 S2,6,32
EEO	E 9,30,37 S 19		S 16	E40,57			E20 S7,31,40
Labor Mgt.		E29,49 S 9,35,44,48,54		E7,19			
Class. and Pay	S 21,39,46		E23.32.42 S13.17.26.37				E2,12,50,51 S30,49
Job Information				E11,17 S62	S64		E44 S10,12,41
Communication		E 27,41		E31,55 S24,33,42,47,52			E6,33,38,48 S5,22,38
Supervision	S 15,20			E15,36,45,60 S14,29,53,60	S27		E5,22,26 S4,8,23,34
Position Mgt.	E 28		E18,39,53	S28,51	E1,39,56,59,63 S56,57		
Morale					E65 S59,65		
Employee Services						E10,21,35,62 S36,55,58,61	E58 S63

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TABLE VIII

Results of Regression Runs

		Employee Factors								Supervisor Factors										Dummy Variables				
Run No.	Const.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	Yr 73	Yr 72	Yr 71	No.Emp.	Adj R^2
1	82.7	0.2	(1.7)	0.7	(1.6)	1.3	0.3	-1.0	(1.9)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.09
2	82.7	--	--	--	--	--	--	--	--	0.0	(1.5)	0.0	(-1.8)	-0.6	(2.1)	0.5	-1.3	(2.2)	-0.6	--	--	--	--	.17
3	82.7	0.6	0.6	0.0	-0.6	1.1	1.2	-1.4	-1.6	-0.5	0.7	0.0	(-3.6)	0.5	(2.1)	-0.5	-1.5	(2.3)	-0.4	--	--	--	--	.19
4	82.7	--	0.3	--	-0.2	--	--	--	(1.9)	--	(1.3)	--	(-1.9)	--	(2.3)	--	--	(2.0)	--	--	--	--	--	.19
5	82.7	--	--	--	--	--	--	--	(1.9)	--	(1.3)	--	(-1.8)	--	(2.1)	--	--	(2.0)	--	--	--	--	--	.20
6	78.7	--	--	--	--	--	--	--	(1.6)	--	1.1*	--	(-1.7)	--	(2.0)	--	--	(1.9)	--	(4.8)	(5.3)	(4.1)	--	.22
7	82.6	--	--	--	--	--	--	--	(1.4)	--	(1.2)	--	(-1.8)	--	(2.0)	--	--	(2.0)	--	--	--	--	0.4	.19
8	78.4	--	--	--	--	--	--	--	(1.9)	--	1.1	--	(-1.6)	--	(1.9)	--	--	(1.9)	--	(4.9)	(5.4)	(4.2)	0.5	.21

* Marginally significant (t = 1.89).

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Figure 1

Determination of Number of Factors Retained

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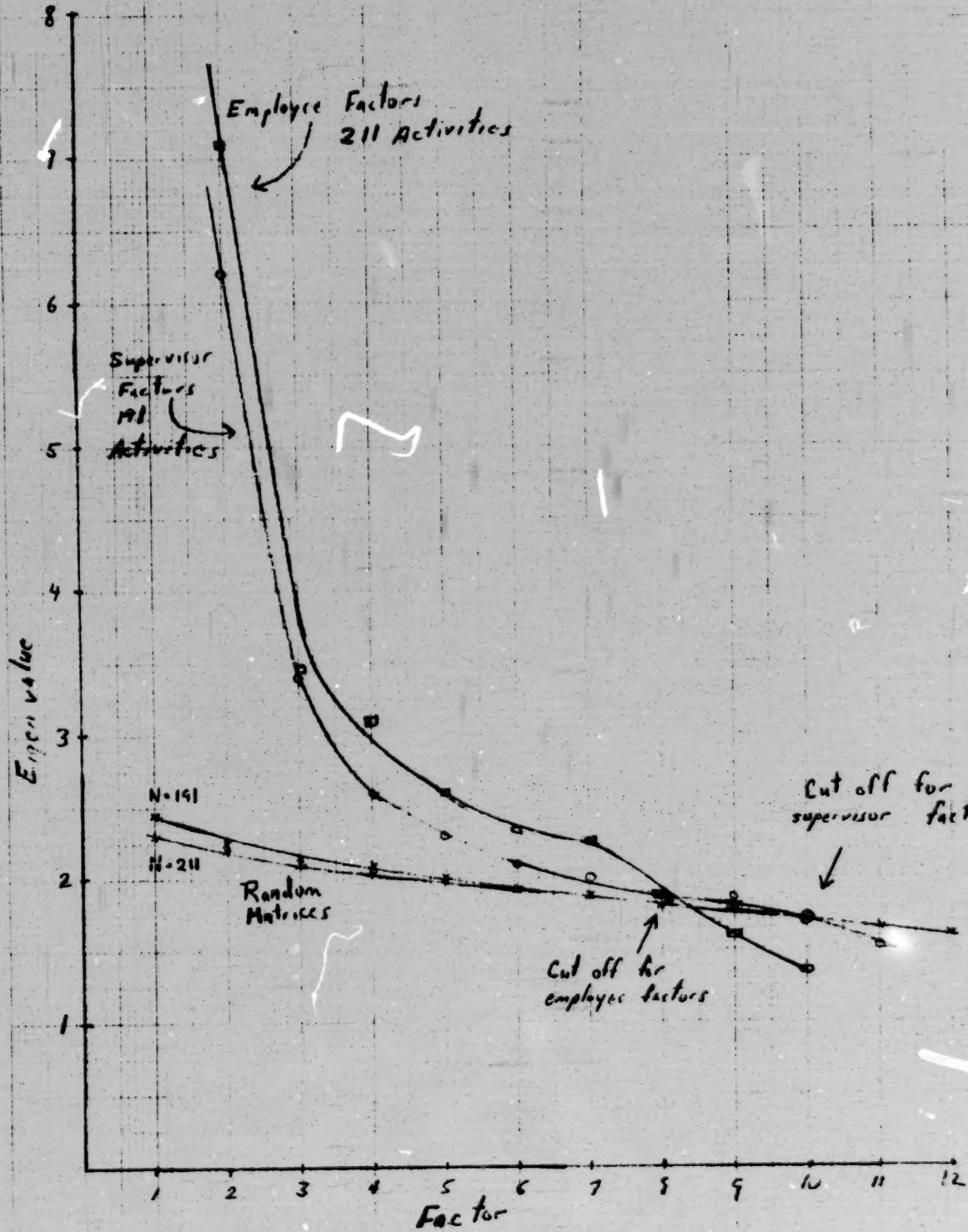

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APPENDIX A

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INTRODUCTION

This questionnaire is part of the evaluation of the personnel program at this activity. The purpose of this evaluation is to learn how the personnel program is serving this organization and to use what is learned for making the program even better.

We would like to know about the important aspects of the personnel program in your organization, the work and your career. We know of no better way to learn this than to ask employees themselves.

If this study is to be useful, it is important that you answer each question as thoughtfully and frankly as possible. This is not a test; there are no right or wrong answers. The important thing is that you answer the questions frankly.

All individual responses to questions are VOLUNTARY and completely CONFIDENTIAL. Although none of the questionnaires, once they are filled out, will ever be seen by anyone in your organization, to assure confidentiality please DO NOT SIGN YOUR NAME. Completed questionnaires are processed by automated equipment. Computers summarize the answers in statistical form so that individual responses cannot be identified. These summaries will be returned to the activity for analysis, planning, and for action, where indicated.

Read each statement carefully and decide how you feel about it. You will agree with some statements, and will disagree with others. You may be undecided about some. To help express your feeling, three possible answers have been placed beside each statement. All that is required is that you choose the answer most like your own and make a mark in the box beside the question. If you cannot decide about a statement, or the question does not apply to you, mark the "?" box, and go on to the next statement. Some of the statements may not be worded exactly the way you would like them. In some instances you would like the opportunity to modify or amplify your response. Perhaps in most instances you would prefer to answer "sometime yes and sometimes no". However, faced with the only choices open to you, answer them in the way that best expresses your feeling most of the time. If its more "yes" than "no" - mark the "yes" box, and if its more "no" than "yes" - mark the "no" box. Be sure to mark every statement. LEAVE NO BLANKS. Mark only ONE answer for each statement.

We hope you will take a personal interest -- perhaps self-interest -- in giving information to assist in improving the personnel program for Navy employees at this activity.

INSTRUCTIONS

Make only ONE mark for each answer
Use ordinary pencil - No. 2 is preferred if available.
Do not make any additional or stray marks on answer sheet.
In making corrections, erase COMPLETELY.

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Questions on this page to be answered in column TWO

Line up this bar with bar on answer sheet

15. PERSONNEL PEOPLE WHO CLASSIFY, TRAIN, RECRUIT, AND QUALIFY, HAVE MORE TO SAY ABOUT MY EMPLOYEES THAN I DO .....

16. AS FAR AS JOB OPPORTUNITIES ARE CONCERNED, MEN AND WOMEN ARE TREATED THE SAME .....

17. I PARTICIPATE IN REVIEWING POSITION/JOB DESCRIPTION OF MY SUBORDINATES AT LEAST ONCE A YEAR .....

18. THE PROMOTION SYSTEM PROVIDES ME WITH CANDIDATES FOR MY VACANCIES IN A REASONABLE TIME .....

19. MEMBERS OF MINORITY GROUPS IN MY WORK UNIT PERFORM THEIR JOBS AS WELL AS THE REST OF MY EMPLOYEES .....

20. FREQUENTLY IT IS EASIER TO TRANSFER AN UNSATISFACTORY EMPLOYEE THAN TO DISCIPLINE OR FIRE HIM .....

21. THE USE OF POSITION/JOB DESCRIPTIONS LIMITS MY FLEXIBILITY IN ASSIGNING WORK TO MY SUBORDINATES .....

22. MY SUGGESTIONS, CRITICISMS AND OPINIONS ARE GIVEN CONSIDERATION BY MANAGEMENT .....

23. MY WORK LOAD IS SUCH THAT I HAVE LITTLE TIME TO DEVOTE TO GUIDING AND ASSISTING MY SUBORDINATES .....

24. I USUALLY GET MY INFORMATION FROM THE "GRAPEVINE" AND "SCUTTLEBUT" BEFORE I GET IT OFFICIALLY .....

25. I HAVE RECEIVED TRAINING OR GUIDANCE IN HOW TO APPRAISE EMPLOYEES FOR PROMOTION PURPOSES .....

26. I KNOW WHEN THE JOB/POSITION DESCRIPTIONS FOR MY SUBORDINATES ARE NOT CURRENT OR ACCURATE .....

27. I PREFER NOT BEING A SUPERVISOR BUT IT IS THE ONLY WAY TO GET A HIGHER GRADE .....

28. I HAVE RECEIVED TRAINING IN HOW TO CARRY OUT MY POSITION MANAGEMENT RESPONSIBILITIES .....

29. MY EMPLOYEES ARE FREE TO BRING THEIR PROBLEMS AND COMPLAINTS TO MY ATTENTION .....

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Questions on this page to be answered in column THREE

Line up this bar with bar on answer sheet

30. EMPLOYEES LEAVING FOR HIGHER PAY ELSEWHERE IS A MAJOR PROBLEM FOR ME .....
31. I WOULD MIND WORKING FOR A SUPERVISOR WHO IS A MEMBER OF A MINORITY GROUP .....
32. I FIND IT DIFFICULT TO SPARE MY EMPLOYEES FOR TRAINING OFF THE JOB .....
33. I REGULARLY ATTEND STAFF MEETINGS WITH OTHER SUPERVISORS AND MANAGEMENT OFFICIALS .....
34. I HAVE SUFFICIENT AUTHORITY TO ACT ON MATTERS OF DISCIPLINE .....
35. I AM KEPT INFORMED OF THE PROVISIONS OF UNION AGREEMENTS COVERING MY EMPLOYEES .....
36. RECREATIONAL FACILITIES AND ARRANGEMENTS ARE ALL RIGHT .....
37. I HAVE AVAILABLE TO ME A COMPLETE SET OF POSITION/JOB DESCRIPTIONS FOR MY SUBORDINATES .....
38. RULES AND REGULATIONS I AM EXPECTED TO FOLLOW ARE AVAILABLE TO ME IN WRITING .....
39. THE DIFFERENCE IN MY PAY OVER THE PAY OF THOSE I SUPERVISE IS ADEQUATE .....
40. IN MY OPINION, MEMBERS OF MINORITY GROUPS ARE TREATED FAIRLY .....
41. I SEE TO IT THAT MY SUBORDINATES KNOW WHAT IS EXPECTED FROM THEM ON THE JOB .....
42. I AM GIVEN AN OPPORTUNITY TO HELP PLAN FUTURE PERSONNEL POLICY .....
43. THERE ARE POSITIONS IN MY UNIT THAT SHOULD BE DOING HIGHER PRIORITY WORK ..
44. I FEEL FREE TO TREAT UNION MEMBERS THE SAME AS I DO NON-UNION MEMBERS .....
45. I AM AWARE OF THE OBJECTIVES OF THE POSITION MANAGEMENT PROGRAM .....
46. PAY LEVELS ARE SUFFICIENT TO ATTRACT TRAINED AND QUALIFIED EMPLOYEES .....
47. I GET MOST OF MY INFORMATION AT THE SAME TIME AS MY EMPLOYEES DO .....
48. I HAVE RECEIVED TRAINING IN THE FEDERAL LABOR RELATIONS PROGRAM .....
49. MY POSITION/JOB DESCRIPTION PRETTY WELL DESCRIBES WHAT I DO .....
50. I COULD REORGANIZE MY UNIT AND MAKE IT MORE EFFECTIVE AND EFFICIENT .....

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Questions on this page to be answered in column FOUR

Line up this bar with bar on answer sheet

51. I HAVE SUFFICIENT AUTHORITY TO PLACE AND REASSIGN MY EMPLOYEES ....
52. I DISCUSS WITH MY EMPLOYEES CHANGES THAT WILL AFFECT THEM .....
53. I RECEIVED TRAINING ON HOW TO BE A SUPERVISOR .....
54. MY DEALINGS WITH UNION REPRESENTATIVES ARE SATISFACTORY .....
55. MEDICAL AND HEALTH FACILITIES ARE ACCEPTABLE .....
56. I AM GETTING MAXIMUM UTILIZATION OF MY EMPLOYEES, SKILLS AND ABILITIES .....
57. MY SKILLS AND ABILITIES ARE BEING WELL USED IN MY PRESENT JOB .....
58. EATING FACILITIES ARE SATISFACTORY .....
59. I VIEW THE MORALE OF EMPLOYEES IN MY UNIT AS HIGH .....
60. I HAVE ENOUGH BACKING AND AUTHORITY TO DO MY JOB .....
61. TRANSPORTATION FACILITIES ARE OK .....
62. WHEN I DO A GOOD JOB MY BOSS LETS ME KNOW .....
63. PARKING FACILITIES ARE SATISFACTORY .....
64. I KNOW WHAT I AM EXPECTED TO DO IN MY JOB .....
65. I WOULD RECOMMEND THIS PLACE TO MY FRIENDS AS A GOOD PLACE TO WORK .....

TURN PAGE AND COMPLETE SUPERVISOR PROFILE DATA

APPENDIX B

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INSTRUCTIONS

This questionnaire is part of an evaluation of the civilian personnel program at this activity—to learn how well it is meeting your needs in addition to the needs of the activity and whether there are areas in which the program can be improved.

We would like to know what your experience has been with this program and how you feel about certain aspects of your own work situation. We know no better way to do this than to ask you directly, through a questionnaire such as this.

All that is required is that you read each statement carefully, decide how you feel about it, and mark the block on the answer sheet that best reflects this feeling.

You will undoubtedly agree with some of the statements, disagree with others. You will probably be undecided about some, or find they don't apply to your situation. If so, mark the "?" box, and go on to the next statement. Some of the statements may not be worded exactly as you would like, or may be of the type you would prefer to answer "sometimes yes and sometimes no." In these instances answer in the way that expresses your feeling MOST of the time. If it's more "yes" than "no," mark "yes." If it's more "no" than "yes," mark "no." Mark only ONE block for each statement.

All responses are VOLUNTARY and completely CONFIDENTIAL. Therefore please DO NOT SIGN YOUR NAME. Your answer sheet together with the others from this activity will be sent to the Navy Office of Civilian Manpower Management for processing by automated equipment. Computers will summarize the answers in statistical form so individual responses can't be identified. The summaries will be returned to your activity for analysis and appropriate action.

We hope you will take a personal interest—perhaps self-interest- in giving information to assist in improving the personnel program for Navy employees at your activity.

NOTE

Make only ONE mark for each answer.
Use ordinary pencil—No. 2 is preferred if available.
DO NOT use pen and ink, ballpoint or crayon.
Do not make any additional or stray marks on answer sheet.
In making corrections, erase COMPLETELY.
Do not fold, bend, or write in questionnaire booklet.

EXAMPLE

Right way Wrong way Wrong way Wrong way

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Answer All Questions on This Page in **Col. 1** ⟶

Line up this bar with bar on answer sheet

1. MY SKILLS AND ABILITIES ARE BEING WELL USED IN MY PRESENT JOB
2. I HAVE REVIEWED MY JOB (POSITION) DESCRIPTION IN THE LAST YEAR
3. THE SAME PEOPLE SEEM TO GET THE BEST ASSIGNMENTS AND PROMOTIONS
4. I AM DOING A BETTER JOB BECAUSE OF THE TRAINING I HAVE RECEIVED AT THIS ACTIVITY
5. I AM FREE TO SUBMIT A COMPLAINT, GRIEVANCE OR APPEAL WITHOUT IT BEING HELD AGAINST ME
6. RULES AND REGULATIONS I AM EXPECTED TO FOLLOW ARE AVAILABLE TO ME IN WRITING
7. I WOULD RATHER GO TO A UNION REPRESENTATIVE OR SOMEONE OTHER THAN MY SUPERVISOR IF I HAD A COMPLAINT
8. I AM BETTER PREPARED FOR PROMOTION BECAUSE OF TRAINING I HAVE RECEIVED AT THIS ACTIVITY
9. THE QUANTITY AND QUALITY OF WORK EXPECTED FROM MINORITY GROUP MEMBERS IS THE SAME AS FOR ALL OTHER EMPLOYEES
10. RECREATIONAL FACILITIES AND ARRANGEMENTS ARE ALL RIGHT
11. MY SUPERVISOR USUALLY GIVES ME CREDIT WHEN I DO A GOOD JOB
12. MY JOB (POSITION) DESCRIPTION PRETTY WELL DESCRIBES WHAT I DO
13. I GET FAIR CONSIDERATION FOR THE BETTER JOBS I APPLY FOR
14. THERE ARE OPPORTUNITIES AT THIS ACTIVITY FOR SELF DEVELOPMENT AND IMPROVEMENT
15. DISCIPLINARY MEASURES, WHEN TAKEN AT THIS ACTIVITY, ARE FAIR AND WITHIN REASON
16. I HAVE JUST AS GOOD A CHANCE OF GETTING AHEAD AS ANY OTHER EMPLOYEE HERE
17. MY SUPERVISOR KEEPS ME PRETTY WELL INFORMED OF HOW I AM DOING MY JOB
18. I DO TOO MUCH LOWER LEVEL WORK THAT SHOULD BE GIVEN OTHERS TO DO
19. WE NEED AN EMPLOYEE GROUP OR OTHER ORGANIZATION TO PROTECT OUR RIGHTS
20. I WOULD MIND WORKING FOR A SUPERVISOR WHO IS A MEMBER OF A MINORITY GROUP
21. MEDICAL AND HEALTH FACILITIES ARE ACCEPTABLE
22. I CAN GET HELP FROM MY SUPERVISOR WHENEVER I NEED IT
23. THE PAY FOR MY JOB IS ABOUT RIGHT FOR THE WORK I DO
24. PROMOTIONS USUALLY GO TO THE BEST QUALIFIED
25. I HAVE RECEIVED ALL THE TRAINING I NEED TO DO MY JOB

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Answer all Questions on This Page in Col. 2 →

Line up this bar with bar on answer sheet

26. MY SUPERVISOR ENCOURAGES ME TO SUBMIT BENEFICIAL SUGGESTIONS
27. I KNOW WHEN AND WHERE THERE ARE JOB OPENINGS THAT I MAY APPLY FOR AT THIS ACTIVITY
28. EVERYONE DOES HIS FAIR SHARE OF THE WORK IN MY UNIT
29. UNION MEMBERS ARE TREATED THE SAME AS NON-UNION MEMBERS
30. AS FAR AS JOB OPPORTUNITIES ARE CONCERNED, MEN AND WOMEN ARE TREATED THE SAME
31. I AM FREE TO DISCUSS WORK IMPROVEMENTS WITH MY SUPERVISOR
32. MY PAY IS FAIR COMPARED TO THE PAY OTHERS ARE GETTING
33. I AM TOLD PROMPTLY WHEN THERE IS A CHANGE IN POLICY, RULES OR REGULATIONS THAT AFFECT ME
34. THIS PLACE WOULD RUN BETTER IF IT WERE ORGANIZED DIFFERENTLY
35. TRANSPORTATION FACILITIES ARE O.K.
36. I HAVE FREEDOM TO DO THINGS MY OWN WAY, WITHIN REASON
37. I THINK THEY LEAN OVER BACKWARDS TO GIVE MINORITY GROUP MEMBERS ALL THE BREAKS
38. I HAVE A CHANCE TO MAKE MY VIEWS KNOWN BEFORE CHANGES ARE MADE THAT AFFECT ME
39. I UNDERSTAND HOW MY JOB FITS INTO THE WORK OF THIS ACTIVITY
40. MEMBERS OF MINORITY GROUPS ARE TREATED FAIRLY AT THIS ACTIVITY
41. BULLETIN BOARDS KEEP ME INFORMED OF THINGS I NEED TO KNOW
42. THE TITLE OF MY JOB IS ABOUT RIGHT FOR THE WORK I DO
43. GETTING TRAINING IS IMPORTANT IF YOU WANT TO BE PROMOTED
44. I AGREE WITH THE LAST PERFORMANCE RATING I RECEIVED
45. I USUALLY CAN TAKE LEAVE WHEN I WANT IT
46. I AM SATISFIED WITH THE PROGRESS I HAVE MADE AT THIS ACTIVITY
47. THE TRAINING I HAVE RECEIVED AT THIS ACTIVITY HAS HELPED ME ADVANCE
48. I GENERALLY KNOW WHAT IS GOING ON AT THIS ACTIVITY
49. I AM FREE TO JOIN A UNION IF I WANT TO
50. I KNOW HOW THE PAY FOR MY JOB IS SET
51. I KNOW HOW TO GET MY CLASSIFICATION REVIEWED

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Answer All Questions on This Page in Col. 3 →

Line up this bar with bar on answer sheet

52. I UNDERSTAND HOW THEY PICK PEOPLE FOR PROMOTION .....

53. I DO A LOT OF UNNECESSARY WORK .....

54. I KNOW WHAT I'M EXPECTED TO DO IN MY JOB .....

55. MY SUPERVISOR TRIES TO GET MY IDEAS ABOUT THINGS .....

56. I GET PERSONAL SATISFACTION FROM MY JOB .....

57. I AM TREATED FAIRLY AND WITH RESPECT .....

58. PARKING FACILITIES ARE SATISFACTORY .....

59. THE WORK I DO IS INTERESTING .....

60. I AM TOO CLOSELY SUPERVISED .....

61. I KNOW THE QUALITY OF WORK EXPECTED OF ME .....

62. EATING FACILITIES ARE SATISFACTORY .....

63. THE WORK I DO IS IMPORTANT .....

64. I KNOW HOW MUCH WORK IS EXPECTED OF ME .....

65. I WOULD RECOMMEND THIS PLACE TO MY FRIENDS AS A GOOD PLACE TO WORK .....

PLEASE REMOVE ANSWER SHEET FROM BOOKLET AND COMPLETE ITEMS UNDER "EMPLOYEE PROFILE DATA"

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